



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,211	04/22/2004	Thomas Hartmann	440874/PALL	5555

23548 7590 02/28/2005  
LEYDIG VOIT & MAYER, LTD  
700 THIRTEENTH ST. NW  
SUITE 300  
WASHINGTON, DC 20005-3960

EXAMINER

SAVAGE, MATTHEW O

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

①

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,211	<b>Applicant(s)</b> HARTMANN, THOMAS	
	<b>Examiner</b> Matthew O Savage	<b>Art Unit</b> 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 1 of claim 6, "the recess" lacks antecedent basis. It is suggested that claim 6 be depended from claim 5 to correct the error.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall '309 in view of Black, Jr. et al.

With respect to claim 1, Pall '309 disclose a method of making a filter element including inserting an end portion of a filter 14 into a liquid bonding material of an end cap 20 (see FIG. 5 and lines 27-43 of col. 11, the liquid bonding material being a molten part of the end cap), inserting a narrow edge (e.g., defined by portions 9 shown in FIGS. 1-2) at an end portion of a core 1 into the liquid bonding material, bonding the end portion of the filter to the end cap (see lines 44-59 of col. 11), and supporting an inner periphery of the end portion of the filter by an outer wall of the core near the bond (see FIG. 5). Pall fails to specify separating some of the liquid bonding material from the end

Art Unit: 1724

portion of the filter. Black, Jr. et al disclose an analogous method including the step of inserting a narrow edge of an end portion (e.g., defined by portions 32, see FIGS. 1 and 5) of a core member 20 into a liquid bonding material (see lines 22-32 of col. 6), the narrow edge being located adjacent an inner periphery of the filter element 27 (e.g., when arranged as described on lines 9-12 of col. 5), and suggest that such an arrangement facilitates keying of the portions 9 with the end cap 20. It would have been obvious to have modified the end portion of Pall so as to have included a narrow edge arranged as suggested in Black et al in order to facilitate keying of the portions 9 with the end cap. Black, Jr. et al fail to specify the step of separating some of the bonding material from the end portion of the filter, however, such a step would be inherent in the combination suggested by Pall and Black, Jr., et al since the combination includes a core having an end portion with a narrow edge position adjacent an inner periphery of the filter, the narrow edge functioning to shear away excess bonding liquid from the inner peripheral edge of the filter.

As to claim 2, Pall discloses inserting the end portion of the filter and end portion of the core into the liquid bonding material simultaneously (see lines 39-43 of col. 11).

Concerning claim 3, Pall fails to specify inserting the filter and end portion of the core into the liquid bonding material at different times, however, such modification is considered nothing more than one of numerous sequences that would have been obvious to one skilled in the art to assemble the filter and would have no significant effect on the outcome of the process.

As to claim 4, the combination of Pall and Black, Jr. et al is capable of directing bonding material away from the end portion of the filter since it includes a narrow edge portion positioned adjacent an inner periphery of the filter.

Regarding claim 5, the combination of Pall and Black, Jr. et al is capable of directing liquid bonding material into an annular recess in the end portion of the core (e.g., when the retainer portions 9 are continuous as described on lines 5-8 of col. 5 of Black, Jr. et al), and solidifying the liquid bonding material in the recess (see lines 22-32 of col. 6 of Black, Jr. et al).

Concerning claim 6, the combination of Pall and Black, Jr. et al include vents (e.g., between the portions 9 of Black, Jr. et al) capable of venting gas.

Regarding claim 7, the combination of Pall and Black, Jr. et al include solidifying bonding material in contact with an interlock arrangement at the end portion of the core (e.g., defined by the portions 32 of Pall or portions 9 of Black, Jr., et al).

As to claim 11, Both Pall and Black, Jr. et al disclose fixing the core to the end cap (see, for example, lines 4-12 of col. 11 of Pall, and lines 33-37 of col. 4 of Black, Jr. et al).

Concerning claim 12, Pall discloses supporting the inner periphery of the filter by arranging the filter and the core such that the inner periphery at the end portion of the filter intimately faces the outer wall of the core (see FIG. 5).

As to claim 13, Pall discloses supporting the inner periphery of the filter by contacting the inner periphery of the end portion of the filter and the outer wall of the core (see FIG. 5).

Claim 1 would be allowable if amended to include the step of providing the core with an outer wall having an inner surface that tapers continuously in a straight or curved direction radially outwardly from a base to the first free end of the outer wall structure to define a narrowed edge at the first free end of the outer wall, the step not being taught or suggested by Pall '309 and Black, Jr. et al.

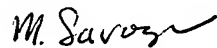
In addition, claims 8-10 are objected to, but would be allowable if amended to include the limitations of the base claim and any intervening claims. It is noted that Pall '309 and Black, Jr. et al fail to specify the step of not fixing the core to the end cap as recited in instant claims 8 and 10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Matthew O Savage  
Primary Examiner  
Art Unit 1724

mos  
February 25, 2005